

FEB 07 2007

Applicant: Carlo Amalfitano
Application No.: 09/778,478**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method of providing multiple grades of wireless service to multiple field users for communication of data between a base station and multiple subscriber units over one or more CDMA communication channels, each grade of service having a corresponding priority level, the method comprising the steps of:

determining when a demand for resources of a base station exceeds a predetermined threshold;

reserving a bandwidth and dividing the bandwidth into a plurality of channels;

maintaining a connection between multiple subscriber units and the base station;

detecting a request by multiple field units to simultaneously transmit data to the base station; and

identifying a priority level of user requesting allocation of bandwidth for transmitting data information to the base station depending on whether a previous

Applicant: Carlo Amalfitano
Application No.: 09/778,478

historical usage of resources by the user exceeds a predetermined threshold, such that:

if the previous historical usage by the user is higher than the threshold, the user is assigned a lower priority level for transmitting data information, the lower priority level entitling the user to use of fewer channels than otherwise allowed when a higher priority level is assigned, and

if the previous historical usage by the user is lower than the threshold, the user is assigned a higher priority level for transmitting data information, the high priority level entitling the user use of the more channels than otherwise allowed when a lower priority level is assigned; and

reserving bandwidth for the users at the lowest priority levels and creating a lowest priority queue to allow at least some access to users with the lowest priority; and

assigning the channels for communication between the base station and subscriber units based on the corresponding priority level of requesting field units so identified when the resources requested of the base station exceeds the predetermined threshold.

2. (Canceled)

3. (Previously Presented) The method as in claim 1 wherein the identified priority level of the user defines a maximum continuous allocation of

Applicant: Carlo Amalfitano
Application No.: 09/778,478

resources entitled to the user to transmit data information from a subscriber unit to the base station over multiple assigned traffic channels of the wireless communication system, and the method further comprising:

detecting whether a time limit for previously assigned channels has been exceeded for a continuous transmission of data based on a corresponding priority level of the user and, if so, the method further comprising:

discontinuing a data transfer by the user;

deallocating use of previously assigned channels; and

decreasing the priority level of the subscriber unit to a lower priority level, the lower priority level entitling the user to use of fewer channels than otherwise allowed when a higher priority level is assigned.

4. (Currently Amended) A method for providing multiple grades of service in a demand access wireless communication system, comprising:

identifying when a demand for resources of a base station exceeds a predetermined threshold;

identifying a priority level of a user requesting allocation of bandwidth for transmitting data information to a base station depending on whether a previous historical usage of resources by that user exceeds a predetermined threshold, such that:

if the previous historical usage by the user is higher than the

Applicant: Carlo Amalfitano
Application No.: 09/778,478

threshold, the user is assigned a lower priority level for transmitting data information, the lower priority level entitling the user to use of fewer channels than otherwise allowed when a high priority level is assigned, and if the previous historical usage by the user is lower than the threshold, the user is assigned a higher priority level for transmitting data information, the high priority level entitling the user use of more channels than otherwise allowed when a lower priority level is assigned; ~~and~~

reserving bandwidth for the users at the lowest priority levels
and creating a lowest priority queue to allow at least some access for
users with the lowest priority; and

allocating bandwidth to the user depending upon the corresponding priority level so identified when the resources requested of the base station exceeds the predetermined threshold.

5. (Previously Presented) A method as in claim 4, wherein the priority level for transmitting data defines a maximum continuous allocation of resources entitled to the user to transmit data information from a subscriber unit to the base station over multiple assigned traffic channels of the wireless communication system.

6. (Previously Presented) A method as in claim 5 further comprising:

Applicant: Carlo Amalfitano
Application No.: 09/778,478

detecting whether a time limit for allocated channels has been exceeded for a continuous transmission of data based on a corresponding priority level of the user and,

if so, the method further comprising:

discontinuing a data transfer by the user;
deallocating use of previously assigned channels; and
decreasing the priority level of the subscriber unit to a lower priority level, the lower priority level entitling the user to use of fewer channels than otherwise allowed when a priority level is assigned.

7. (Previously Presented) A method as in claim 4, wherein a user is allocated resources depending on a cumulative amount of data information previously transferred from a subscriber unit to the base station.

8. (Previously Presented) A method as in claim 4, wherein the threshold defines a cumulative amount of data information that a user can transmit over specified period of time without being assigned to a lower priority level.

9. (Previously Presented) A method as in claim 4, wherein the threshold varies over time.

10. (Previously Presented) A method as in claim 4, wherein the previous historical usage of resources is determined by comparing usage over a period of at least several past days.

Applicant: Carlo Amalfitano
Application No.: 09/778,478

11. (Currently Amended) An apparatus for providing multiple grades of service in a demand wireless communication system, comprising at a base station:

a processor that determines when a demand for resources of a base station exceeds a predetermined threshold;

a processor that identifies a priority level of a user requesting allocation of bandwidth for transmitting data information to the base station depending on whether a previous historical usage of resources by that user exceeds a predetermined threshold, such that

if the previous historical usage by the use is higher than the threshold, the processor assigning the user of a lower priority level for transmitting data information, the lower priority level entitling the user to use of fewer channels than otherwise allowed when a higher priority level is assigned, and

if the previous historical usage by the user is lower than the threshold, the processor assigning the user a higher priority level for transmitting data information, the higher priority level entitling the user use of more channels than otherwise allowed when a lower priority level is assigned; and

the processor reserving bandwidth for the users at the lowest priority levels and creating a lowest priority queue to allow at least

Applicant: Carlo Amalfitano
Application No.: 09/778,478

some access to users with the lowest priority; and

the processor allocating bandwidth to the user depending upon the corresponding priority level so identified when the resources requested of the base station exceeds the predetermined threshold.

12. (Previously Presented) The apparatus of claim 11, wherein the priority level for transmitting data defines a maximum continuous allocation of resources entitled to the user to transmit data information from a subscriber unit to the base station over multiple assigned traffic channels of the wireless communication system.

13. (Previously Presented) The apparatus as in claim 12 wherein:
the processor detects whether a time limit for allocated channels has been exceeded for a continuous transmission of data based on a corresponding priority level of the user and, if so:

the processor discontinues a data transfer by the user;

the processor deallocates use of previously assigned channels;

and

the processor decreases the priority level of the subscriber unit to a lower priority level, the lower priority entitling the user to use of fewer channels than otherwise allowed when a higher priority level is assigned.

Applicant: Carlo Amalfitano
Application No.: 09/778,478

14. (Previously Presented) The apparatus as in claim 11, wherein the processor allocates resources to a user depending on a cumulative amount of data information previously transferred from a subscriber unit to the base station.

15. (Currently Amended) The apparatus as in claim 11, wherein the threshold defines a cumulative amount of data information that a user can transmit over a specified period of time without being assigned to a lower priority level.

16. (Previously Presented) The apparatus as in claim 11, wherein the threshold varies over time.

17. (Previously Presented) The apparatus as in claim 11, wherein the processor determines the previous historical usage of resources by comparing usage over a period of at least several past days.

18. (Currently Amended) An article of manufacture, comprising:

a computer-usable medium;

a set of computer operating instructions embodied on the medium, including instructions for a method for providing multiple grades of service in a demand access wireless communication system, the instructions comprising:

identifying a priority level of a user requesting allocation of bandwidth for transmitting data information to a base station depending on whether a previous historical usage of resources by that user exceeds a predetermined threshold, such that:

Applicant: Carlo Amalfitano
Application No.: 09/778,478

if the previous historical usage by the user is higher than the threshold, the user is assigned a lower priority level for transmitting data information, the lower priority level entitling the user to use of fewer channels than otherwise allowed when a higher priority level is assigned, and

if the previous historical usage by the user is lower than the threshold, the user is assigned a higher priority level for transmitting data information, the higher priority level entitling the user use of more channels than otherwise allowed when a lower priority level is assigned;

and

reserving some bandwidth for the users at the lowest priority levels
and creating a lowest priority queue to allow at least some access; and

allocating bandwidth to the user depending upon the corresponding priority level so identified.

19. (Previously Presented) The article of manufacture of claim 18 wherein the priority level for transmitting data defines a maximum continuous allocation of resources entitled to the user to transmit data information from a subscriber unit to the base station over multiple assigned traffic channels of the wireless communication system.

20. (Previously Presented) The articles of manufacture of claim 19 wherein the instructions further comprise:

Applicant: Carlo Amalfitano
Application No.: 09/778,478

detecting whether a time limit for allocated channels has been exceeded for a continuous transmission of data based on a corresponding priority level of the user and, if so, the instructions further comprising:

discontinuing a data transfer by the user;

deallocating use of previously assigned channels; and

decreasing the priority level of the subscriber unit to a lower priority level, the lower priority level entitling the user to use fewer channels than otherwise allowed when a higher priority level is assigned.

21. (Previously Presented) The article of manufacture of claim 18 wherein the instructions further comprise allocating resources to a user depending on a cumulative amount of data information previously transferred from a subscriber unit to the base station.

22. (Currently Amended) The article of manufacture of claim 18 wherein the threshold defines a cumulative amount of data information that a user can transmit over a specified period of time without being assigned to a lower priority level.

23. (Previously Presented) The article of manufacture of claim 18 wherein the threshold varies over time.

24. (Previously Presented) The article of manufacture of claim 18 wherein

Applicant: Carlo Amalfitano
Application No.: 09/778,478

the instructions further comprise determining the previous historical usage of
resources by comparing usage over a period of at least several past days.